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Greenhouse Gas Technology Verification News

NEWSLETTER Issue 2

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A third-party verifier of greenhouse gas (GHG) technology applications. The Center works to increase the use of promising GHG technologies, develop sound verification protocols, and help industry make better technology purchase decisions.

AlliedSignal Submits New Microturbine For Verification

AlliedSignal Power Systems, Inc. of Torrance, California, and Sonat Power Systems, Inc. of Birmingham, Alabama, in cooperation with Florida Gas Transmission, an Enron/Sonat affiliate, have entered into an agreement with the GHG Verification Center to conduct independent third-party performance verification of AlliedSignal's Parallon/75 kW TurboGenerator™. The verification will begin this fall at a natural gas transmission station in Florida operated by Florida Gas Transmission.

The AlliedSignal TurboGenerator™

Sushma Masemore, Deputy Director of the Center said, "When we met with the top oil and gas producers in Houston last year, microturbines were one of five new technologies the industry was interested in having independently verified by the Center." Sheri Cook, SPS director said, "Both AlliedSignal and Sonat are excited to be working with Southern Research to demonstrate how the Parallon/75 TurboGenerator can be an environmentally friendly alternative for the oil and gas industry." Charles Weinstein of AlliedSignal said, "We've experienced significant interest in the use of

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GHG Legislative Proposals Increase in US

The Senate Environment and Public Works Committee Chair, John Chaffee (R-RI), has reintroduced a proposal to encourage industry to voluntarily reduce greenhouse gas emissions. His proposal, known as the Credit for Voluntary Reduction Act (S547), was introduced to the Senate on March 4, 1999, and comes on the heels of similar greenhouse gas early action legislation he introduced at the end of the 105th Congress. The Act would allow participants to receive greenhouse gas reduction credits under a wide range of potential future regulatory regimes. It sets forth general reporting, measurement, and verification procedures, requires public availability of participants' reports, and requires the use of qualified independent third-party entities to measure, track, and report baselines and emissions. To learn more, go to http://thomas.loc.gov/ and search for S547.

James Jeffords (R-VT), Pat Leahy (D-VT), and Frank Murkowski (R-AK) all announced plans to introduce GHG legislation ranging from strengthening voluntary reporting under Section 1605b of the Energy Policy Act, to delegating the authority to EPA to set GHG caps and oversee a national trading system.

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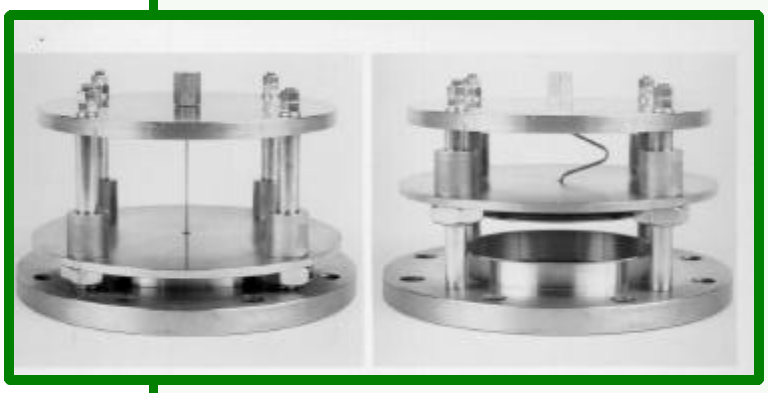
FEATURED VERIFICATIONS



PRV Verification. Pressure relief valves (PRVs) are used in many industries to protect storage tanks from over pressurization damage. They are used heavily in the petroleum and petrochemical industries, and even when they do not vent pressure from a tank (non-venting mode), they can release or leak greenhouse gasses, and other pollutants into the atmosphere. The Protectoseal Company of Bensenville, Illinois has submitted for independent performance verification a patented PIN-TECH™ PRV. According to The Protectoseal Company, the PIN-TECH device is designed to release minimal emissions (<500 PPM) when in the non-venting mode, exhibit precise response to tank pressure changes, and ensure compliance with EPA air pollution regulations. The Center will verify the performance of the PIN-TECH device when in the "non-venting mode" by subjecting it to a wide range of simulated storage tank pressure cycles. Emissions from the device will be measured directly under these simulated operating conditions, and the system's pressure response sensitivity will also be verified.

New Monitoring Technology Verification. Coastal Corporation's ANR Pipeline Company subsidiary (ANR) of Detroit, Michigan has submitted for independent performance verification a patented Parametric Emissions Monitoring System (PEMS). PEMS's may offer a cost-effective alternative to continuous emission monitors by using commonly monitored process variables to determine emissions of criteria and other pollutants. The PEMS, developed by ANR Pipeline, is applicable to large IC engines and turbines, and uses engine variables that are already monitored on most engines to predict criteria pollutant and GHG emissions. The Center will verify the performance of ANR's PEMS by comparing the emissions of nitrogen oxides (NOx), carbon monoxide (CO), total hydrocarbons (THC), and carbon dioxide (CO_2) predicted by the PEMS, with values measured by calibrated continuous emission monitors. In addition, when emissions are unexpectedly high, the PEMS has a unique diagnostic capability, which will also be evaluated during the performance verification. This will allow users to identify the operational factor(s) which may be responsible for the high emissions.

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Engineers From AlliedSignal, Sonat, The Center, Enron, and Florida Gas Transmission survey the location of the TurboGenerator in Melborne.

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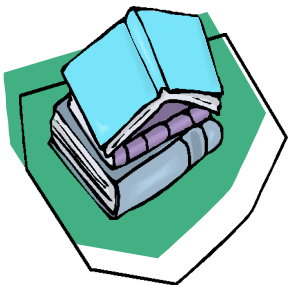
turbogenerators, both in the US and overseas, and we're hopeful that third-party verification will give this new and exciting technology an even greater boost."

The Center's field verification of the TurboGenerator unit will occur in two phases over an 8-month period. The objectives of Phase I are to verify: (1) power production and energy conversion efficiency performance, (2) electricity quality, (3) capital, installation, operation and maintenance requirements, (4) emission rates of GHGs and criteria pollutants, and (5) GHG emission reductions. Phase II has similar objectives, but a more long-term perspective will be provided, and economic performance will be assessed. A Quality Assurance Test Plan will be available in July, and may be downloaded from the Center's Web site.

AlliedSignal Power Systems, Inc. (a subsidiary of AlliedSignal, Inc.) is a developer and producer of power generation systems for use in private businesses and remote locations around the world. Sonat Power Systems, Inc. (a subsidiary of Sonat, Inc.) is an integrated oil and natural gas company headquartered in Birmingham, Alabama. Sonat, Inc. is engaged in exploration and production of oil and natural gas, interstate transmission of natural gas, and energy services. Sonat Power Systems is the exclusive distributor of the Parallon/75 TurboGenerator in 13 southern states and the District of Columbia. Florida Gas Transmission, a wholly owned subsidiary of Citrus Corp., operates an approximately 5000-mile interstate natural gas transmission system from South Texas to South Florida. Citrus Corp. is owned jointly by a subsidiary of Enron Corp. of Houston and Sonat, Inc. of Birmingham.

UPCOMING EVENTS



New Verification Guideline Documents to be Published. The Verification Test Plans developed by the Center are specific to the sites at which testing is conducted, and contain protocols for verifying GHG emissions, reductions, baselines, and operational performance variables. Starting in 1999, these site-specific plans will become the basis for development and publication of more generic Verification Guideline documents. Because verification methods can change after initial planning is complete, (i.e., after the Test Plan is prepared), generic Verification Guidelines will be published only after each field verification is complete. With this approach, the Center will be able to provide "field-tested" protocols to interested users, and provide suggestions for practical long-term GHG monitoring methods as well. The first Verification Guidelines are expected to be published in late 1999, for technologies used in the natural gas transmission industry.

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HOST SITES AND PROMISING NEW TECHNOLOGIES ARE NEEDED...

IF YOU NEED TO DETERMINE THE ECONOMIC OR TECHNICAL PERFORMANCE OF A PROMISING NEW GHG TECHNOLOGY, OR HAVE A NEW TECHNOLOGY OTHERS SHOULD KNOW ABOUT... WE MAY BE ABLE TO HELP!

BE A *HOST SITE* OR *TEST CANDIDATE*

JOIN THESE FIRMS PARTICIPATING IN GHG CENTER VERIFICATIONS

A&A Environmental Seals, Inc.
AlliedSignal Power Systems, Inc.
ANR Pipeline Company
The C. Lee Cook Company
Enron Gas Pipeline Group
Florida Gas Transmission Company
France Compressor Products
International Fuel Cells, Inc.
Sonat Power Systems, Inc.
The Protectoseal Company
The Transwestern Pipeline Company

Contact the GHG Technology Verification Center by calling Stephen Piccot at Southern Research Institute (919-403-0282), or David Kirchgessner at the USEPA (919-541-4021). View our site at www.sri-rtp.com.

ETV